Chief Executive Officer's Report

Our aim was simple: to become Australia's pre-eminent wireless local loop broadband service provider, firstly in Sydney and then across the rest of metropolitan Australia. Our initial product is wireless broadband.

David Spence

Fiscal 2004 – particularly the second half – was a time of intense activity for Unwired. Having raised additional equity of $105 million, bringing the total capital raised to $235 million, and listing on the Australian Stock Exchange in December, we started the calendar year with a staff of 12, sufficient capital and a business proposition to offer the market.

Our aim was simple: to become Australia's pre-eminent wireless local loop broadband service provider, firstly in Sydney and then across the rest of metropolitan Australia including regional centres. Our initial product is wireless broadband.

To achieve this we devised a plan that covered a list of key objectives. These were to: build a network that would give us close to 95 per cent coverage of the wider Sydney residential population; establish a brand that encapsulated the values of convenience, simplicity and freedom; recruit a talented and motivated team who would be critical to our success; build the company infrastructure, systems and processes to give us a solid base for expansion across Australia; identify key partners to provide essential capabilities and outsourced services; and finally, launch successfully into the Sydney market.

Despite a number of challenges encountered in the marketplace and in building a network in record time, I am pleased to note that at the time of writing the company has delivered on all its prime objectives and remains on track. As of this date, we have the largest single non line-of-sight wireless broadband network deployment in the world. We are justifiably proud of this fact, as well as of the speed of the deployment and the budget within which it was completed.

Building the network

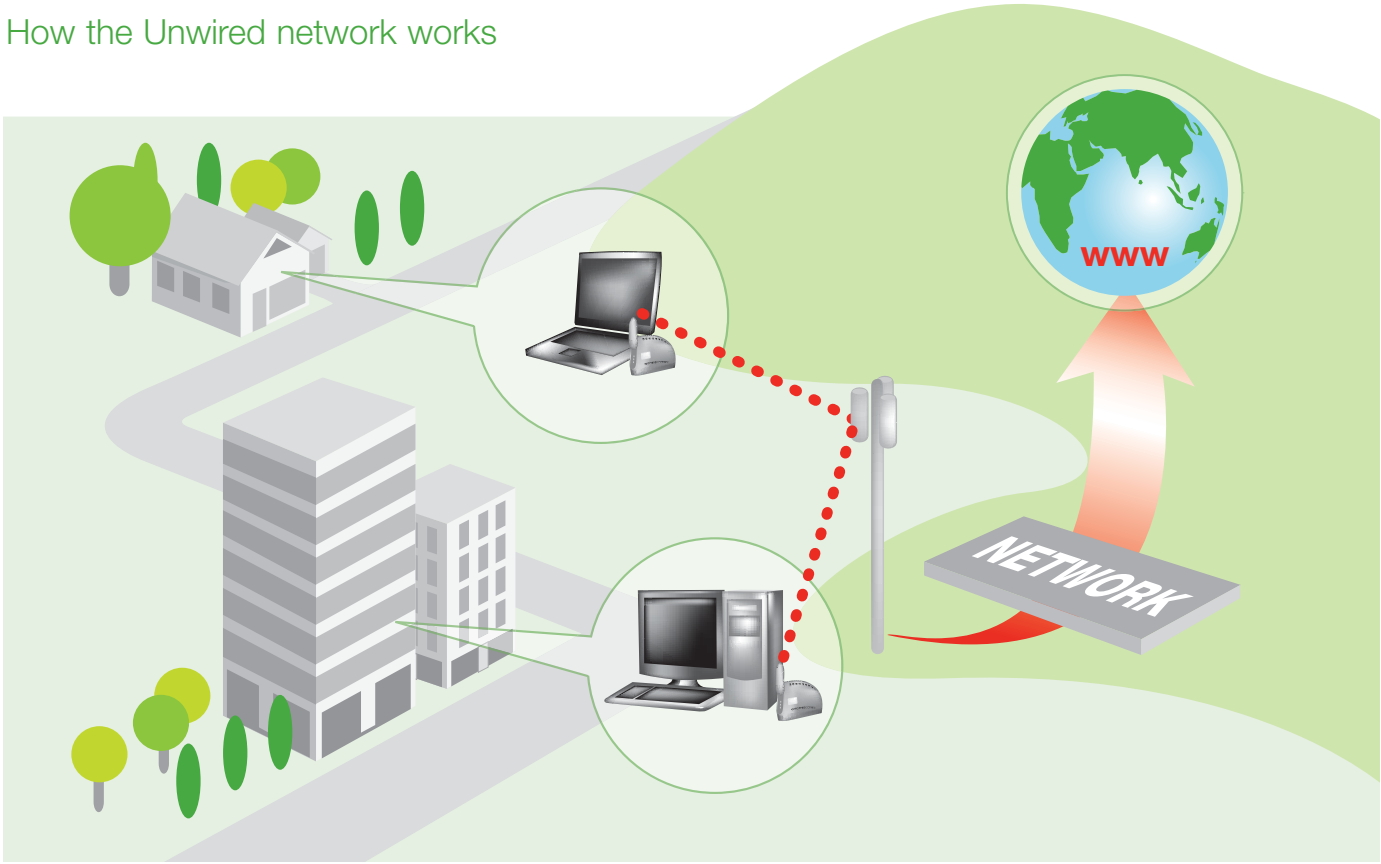
The key factors in building a commercially sustainable network are capacity, coverage and cost. It was vital then for Unwired in the selection of a network equipment supplier to assess a number of contenders against these factors. This would give us a clear picture of who could provide the lowest cost of service by population or premises covered.

When looking at capacity and coverage, the technology we selected had to initially support 200,000-plus customers in Sydney with broadband access and voice services. It also had to allow 95 per cent of all households and businesses in the planned coverage area to receive the service inside their premises, with no requirement for external antennas or professional installation.

On the cost front, we factored in costs of base station equipment, customer modems, installation costs and the number of sites required to attain coverage (including construction and ongoing lease costs). Importantly, there were to be no customer premises installation costs.

We also reviewed the performance and future potential of competing suppliers. Purveyors of this equipment are generally newer companies in an emerging market, so we looked for answers to such questions as: which companies were winning more trials and contracts? Which were likely to be winners commercially? Which had the strongest balance sheets or financial backers to support their growth? Some suppliers had only one or two deployments around the world; others had 20 to 30.

How the Unwired network works



Finally, we assessed the progress they had made towards standards setting and compatibility. The main contender for the wireless standard is WiMax. The WiMax standard (particularly IEEE 802.16 d & e) is still under development but is expected to be completed and commercially available by 2006 or 2007. We have chosen a supplier, Navini Networks – a Texas-based private company – that has made a commitment to move towards standards-based equipment once it is established and ratified.

Navini provides non line-of-sight capability and a high level of in-building coverage by combining technical advances such as multipath radio, beamforming antennas, synchronous Code Division Multiple Access technology (which allows many users to occupy the same time and frequency allocations in a given band/space) and software-defined radio.

Navini's high non line-of-sight radius, fewer towers per square kilometre and Unwired's choice of backhaul providers meant a low cost per user, with most of the cost capital for the base stations. The customer premises equipment (modem) cost was also attractive and very competitive compared with existing DSL modems and other access devices. The joining-up process was simple and convenient and therefore had lower support costs.

Navini has conducted and is currently conducting commercial rollouts and carrier trials in more than 25 countries across North America, Latin America, Europe and Asia/Pacific Rim. We have signed an exclusivity agreement whereby for a specified period Navini can only supply product in Australia to Unwired. In turn, we have agreed to continue to purchase the company's products.

Establishing the Unwired brand

To help build our brand credibility, Unwired recruited the services of high-profile sports personalities – surfer Layne Beachley and cricketer Brett Lee. Both these stars personify our vision of freedom, healthy living and a "no-boundaries" approach.

Our offer to customers is unique: a truly portable, plug-and-play, secure broadband service across a state-of-the-art wireless network. It's evolutionary and revolutionary technology that perfectly encapsulates www: no-wires, no-wait and no-worries.

Our targets are the residential, small and medium enterprises and home-office markets in the greater Sydney region – customers who require a simple and convenient high-speed internet service at a competitive price. The additional benefit they receive is the focused attention of a provider dedicated purely to wireless services.

The Unwired service is available almost anywhere within the Sydney metropolitan coverage area. Customers can access their Unwired broadband connection wherever they take their modem and connect it to a computer. The same modem can be used in the customer's home, office or university or while attending an offsite meeting or conference. That's because our small external modem will connect wirelessly to any of our towers across Sydney.

Customers can move house without the inconvenience of ordering or cancelling telephone lines, making it an ideal option for the rental market.

In addition to a connection (modem and contract term), our current retail offer consists of a selection of plans and prices to suit a wide range of users. The plans are simple yet flexible, and pricing is comparable with traditional DSL and cable broadband offerings.

This allows us to compete for 95 per cent of the Sydney market, giving us potentially a greater share of the market than traditional broaband services. Several unique features have been included in our plans to reinforce the flexibility, convenience and simplicity of our offer: customers can change their plan mid-month and we're offering a 30-day, money-back guarantee to counter any concerns and uncertainty they may have about the new technology.

Another innovation is our email solution, uMail, powered by our email provider BlueTie – a leading provider of web-based messaging and collaboration software. Our email solution offers a generous mailbox, free anti-spam, an exceptionally user-friendly web interface and allows customers to access their mailboxes via alternative devices. We considered these features to be important for the modern broadband customer. They reinforce our desire to offer a more innovative and useful solution than those built for restricted dial-up markets and still offered by most service providers.

Over coming months we will be releasing additional services. Our strategy is to look to the new-generation features and applications emerging overseas and locally. These address the changing and more sophisticated needs of customers who require and expect more from their broadband connections, particularly as broadband becomes more portable.

"I jumped at the chance to participate in Unwired's early service demonstration in the Pyrmont area. From the start I was impressed with the quality of the service and the professionalism of the technical staff. I am now a happy subscriber. Free to roam, cordless, wireless – Unwired!"

EZ, PYRMONT

Recruiting a team

Unwired employs about 70 full-time staff with a further 40 working indirectly on our behalf in the offices of our partners. The team has been built from a selection of experienced professionals from the internet and telecommunications industries who bring “can-do” attitudes and an ability to work together to solve problems. The group leadership team has nine members who manage the business and maintain relationships with our partners. Our customer relations and service staff remain at the core of our business.

Building infrastructure

Central to the rollout of Unwired’s services across Australia has been the establishment of a customer service centre and network operations group to provide our customers across Australia with superior customer service.

The customer service centre operates from 7.30am to 11.30pm Monday to Friday and 9.00am to 5.00pm on Saturdays and Sundays. We established it in-house to ensure that we “own” customers completely and can anticipate their needs.

The network operations group is responsible for managing the relationship with network suppliers, and the day-to-day management of the network.

Identifying key partners

Unwired has carefully selected partners with whom we are developing our network, services and product capabilities. For the acquisition of sites and construction of the base stations we chose Downer Crown Castle Wireless Services, a recently formed joint venture that has brought together leaders in the fields of tower and site ownership and communications network construction. Other partners include Uecomm for fibre backhaul, AAS for radio frequency planning, Airspan for the backhaul equipment, Ericsson for network management, logistics company Exel for warehousing and distributing modems around Australia, Cisco for the supply of router and IP switching equipment, and BlueTie for the provision of our email services. With all partners we plan to – and do – work closely on integrating systems, adhering to governance models and rapid dispute-resolution procedures. All our partners have the scale and experience to grow with us and lead the Australian field in their particular areas of expertise.

FOR THE PROVISION OF BASE STATIONS AND CUSTOMER PREMISES EQUIPMENT

Navini NETWORKS

FOR THE PROVISION OF NETWORK OPERATIONS CENTRE SERVICES

ERICSSON

FOR THE SUPPLY OF BACKHAUL EQUIPMENT

Airspan

FOR THE PROVISION OF OPTICAL FIBRE BASED ETHERNET ACCESS SERVICES

Uecomm fibre broadband

FOR THE SUPPLY OF DATA CENTRE SPACE AND FACILITIES

equinix

FOR THE SUPPLY OF ROUTER AND IP SWITCHING EQUIPMENT

Cisco Systems

FOR THE PROVISION OF FULFILLMENT SERVICES

exel

FOR THE PROVISION OF EMAIL SERVICES

BlueTie

FOR SITE AQUISITION AND BASE STATION CONSTRUCTION

dcc wireless services

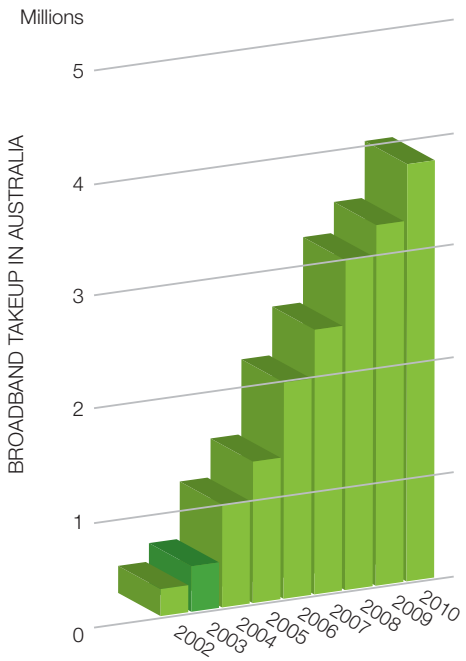
Launching into Sydney

The Unwired service was launched in Sydney suburb-by-suburb from 1 June through to mid-August. Our base stations serve 13 clusters spanning more than 2,000 square kilometres with a reach of approximately 3.5 million people in 1.2 million households – and approximately 240,000 SOHO and SME businesses. Of these premises, 95 per cent will be able to receive a good in-building service. We're assuming that the average customer will require 512Kbps in the first year of operation.

Unwired is going to market through direct, dealer, value-added reseller and wholesale channels. This approach gives us the necessary breadth to accelerate our reach to customers across all segments, especially residential and SMEs. Value-added resellers (who will repackage or bundle our product and onsell it) and wholesale clients are especially important because of their ability to provide differentiated services and use their own well-established brands and customer relationships. At the time of writing, we have signed a retail agreement with Harvey Norman and Apple and wholesale agreements with People Telecom, Exetel, Internode, Veritel and TSN.

Though major internet service providers and carriers have shown interest in our services, it's unclear whether they feel the same urgency as other channels in taking on what may be viewed as much as a threat as an opportunity. This is especially true for those with substantial investments in current technology infrastructure, voice-over copper and plans for 3G networks. We believe this concern will diminish as network capabilities are proven and the rapid acceptance and take-up of our products becomes apparent.

Broadband take-up will steadily increase



Source: ACCC, independent market research

Operational performance

The fast deployment of a network covering a large area like greater Sydney was always going to be challenging. To achieve this aggressive timetable our implementation team and partners needed to secure 73 site leases in areas determined by the radio frequency (RF) planning, and ensure there was sufficient space on these sites for our equipment, design and construct. This often necessitated:

- custom built cabinets to fit available space
- different cable lengths per site to fit exactly between antennas and the cabinets
- cranes and road closures needed to get equipment on site
- fibre installations required to core sites before other sites could connect into that backhaul
- delivery of equipment on time
- a steady supply of sites ready for installation and commissioning every week to keep a constant workflow to our commissioning teams.

Some of the toughest problems we faced included the time it took to deal with large publicly owned sites and some initial supply chain issues.

To safeguard equipment supply, Unwired and Navini have a "carrot-and-stick" agreement. Navini outsources manufacturing to two large contractors in China. Our supply team has visited China to ensure that all buying of components and systems and quality-control processes are maintained to ensure a smooth flow of customer premises equipment (modems). We have invested in buffer safety stock to ensure we can meet demand. Navini, too, is building up safety stocks of componentry and finished modems in line with our forecasts. As mentioned, we form one of 33 Navini rollouts round the world, all dependent on the modem supply chain.

Capacity is an issue to which we have paid great attention. Unwired not only has the ability to increase capacity per sector in the future, but we can install additional capacity quickly in areas where demand is high. Initial capacity in Sydney is capable of serving more than 70,000 customers simultaneously, but we have the ability to expand it to meet the needs of well over half a million.

We continue to identify and consolidate retail and wholesale sales partners and expect to pilot a VoIP service by the end of the calendar year.

Global broadband statistics

Broadband access amongst internet households – 2001 > 2004

COUNTRY	INTERNET HOUSEHOLD PENETRATION			
	2001 %	2002 %	2003 %	MID-2004 %
South Korea	65	76	85	87
Canada	14	32	40	80
Belgium	7	22	63	70
Hong Kong	8	45	65	68
Singapore	7	35	55	66
Taiwan	13	28	44	47
Austria	13	25	40	45
Japan	15	25	41	45
USA	17	23	35	38
Spain	8	15	37	42
Netherlands	15	25	36	44
France	4	16	35	40
Denmark	8	15	30	35
UK	2	10	21	31
Switzerland	6	14	20	28
Sweden	10	15	20	25
Germany	8	11	15	20
Australia	**1.5**	**5**	**7**	**15**
New Zealand	0.5	1.5	1.8	2.5

(Source: Paul Budde Communication, www.budde.com.au)
Note: In every country in this table, 50% to 70% of all households have internet access.

Unwired's Sydney coverage

Competitive landscape

We believe the adoption rate of wireless broadband services will be similar to that of mobile phones in the '90s. More and more consumers are attracted to the convenience of the emerging broadband market, particularly now that costs are falling. Independent research indicates that 698,700 broadband services were connected across Australia in December 2003, up from the previous year's 363,500.

At the same time, it was estimated that 20-25 per cent of all internet users were ready to move on to broadband access as soon as the price was right. This started to happen in early 2004. By July, Australia's broadband connections officially passed the one million mark and forecasts suggest there will be 2.5 million broadband users by 2005. That said, Australia still trails the rest of the world, with broadband internet household penetration still well below 20 per cent.

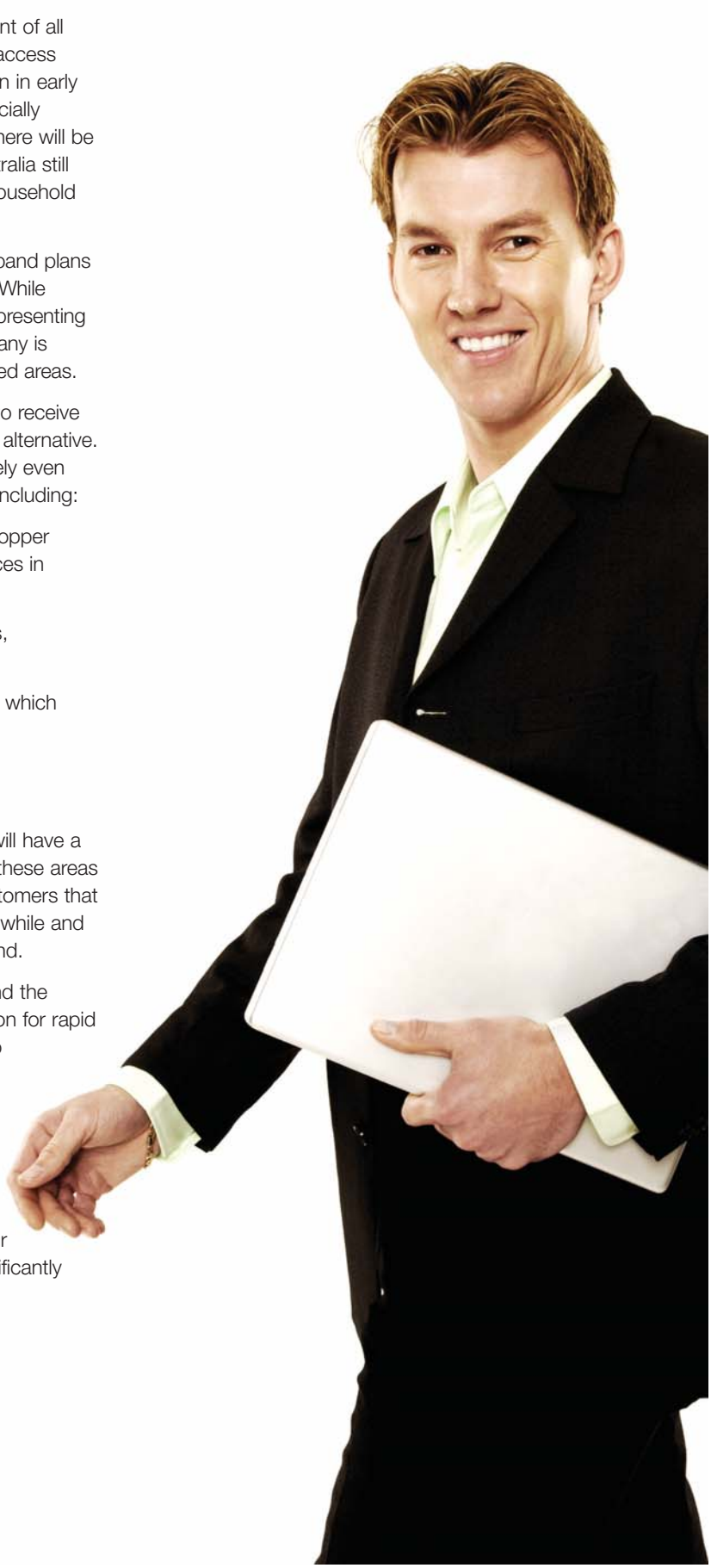
More than 200 service providers currently offer broadband plans nationwide, mostly re-selling Telstra's wholesale DSL. While Unwired views the emerging broadband market as representing an opportunity, the competitive situation for the company is primarily split into DSL-uncontested and DSL-contested areas.

For customers who want broadband but are unable to receive the service, buying a wireless service is an affordable alternative. Areas not covered by traditional broadband vary widely even within suburbs. This is driven by a number of issues including:

- Pair gains in the phone lines which share single copper pairs up to six times to offer multiple phone services in line-constrained areas
- RIMS which are found in a number of office parks, residential developments and apartment blocks
- Customers beyond the reach of DSL, reasons for which can include poor copper line quality
- Inadequate services in local exchanges to enable the use of broadband equipment.

In DSL-contested areas, potential broadband users will have a better choice of broadband technology providers. In these areas Unwired will need to be heard – and to convince customers that the "no-wires, no-wait, no-worries" message is worthwhile and true. We anticipate that this market will indeed respond.

Unwired's business model, the state of the market and the robustness of wireless technology has set a foundation for rapid growth. We have a very strong balance sheet with no borrowings and more than $67 million in cash as of 30 June 2004, a network effectively covering Sydney and excellent infrastructure. We have formed close business partnerships, have leading-edge products and committed staff. We are confident that by working together with partners and technology providers we will continuously improve our performance and continue to grow the business significantly in the coming year.



Leadership team

Richard Bean → General Counsel
Former Legal Counsel and Network Business Manager for Programming at Network Ten, Richard has more than 10 years experience as a media, commercial and litigation lawyer in private and corporate practice.

Claude Brown → General Manager, Development
With more than 20 years experience in software development in the financial and internet sectors, including several major development projects, Claude spent three years at the Australian Stock Exchange (CORE Systems project), four years at the Swiss Stock Exchange (EBS Project), and seven years at Telstra BigPond.

Eric Hamilton → Chief Technical Officer
More than 25 years experience in telecommunications, including nine years at Telstra and OTC, Eric's former roles include Director IP Networks and e-Technology at Optus and Vice President, Networks at OzEmail.

Eve Hayter → General Manager, Customer Operations
Unwired's first employee commencing in June 2001, Eve has 10 years experience in HR and Operations including stints with the Sydney Olympic Games Organising Committee and Universal Music in London.

Omar Khalifa → General Manager, Products & Wholesale
More than 25 years experience in product, marketing and e-commerce within technology, internet and finance related firms, Omar's former roles include Director Business Management – Broadband & Online Services at Telstra and Director of e-commerce at Citigroup.

Vicki Potts CA (NZ) → Chief Financial Officer
With Unwired since July 2002, Vicki was previously CFO of listed modem company Netcomm and prior to that was CFO of New Zealand telecommunications startup, Saturn Communications (now Telstra Clear). Vicki also has 10 years experience in senior financial roles in the UK in the healthcare and transport sectors.

Jacqui Seears → General Manager, Sales and Marketing
More than seven years experience in IT and telecommunications, Jacqui was most recently Marketing Manager – Business Solutions at Vodafone and Managing Director of Mobus Global, wireless solutions.

Amanda Wallace → General Manager, Communications
With more than 12 years experience in corporate communications, eight of which have been in the telecommunications arena, Amanda has held positions at Telstra, Optus and most recently was an Account Director at an IT&T agency working for bluechip technology clients such as Intel, EMC and Symantec.

"Unwired entered the market offering the best value for money and best coverage Sydney-wide. For me the launch marks a big milestone in Australia's wireless broadband future. I wish Unwired luck with its plans to become the second telephone loop Australia-wide, and look forward to using voice over IP telephony services in the near future."

MC, ARTARMON

Q+A

Time to shed some light on Unwired's service

What is Unwired wireless broadband?

Unwired broadband provides high speed internet access. But unlike traditional ADSL or cable broadband which provides this service through a phone line or cable outlet, we deliver it over the air, wirelessly, to an Unwired modem attached to a computer.

How is Unwired's service different to WiFi

Although the idea of taking a laptop to a café and other fixed wire (WiFi) hotspots and connecting wirelessly to broadband internet is appealing to some, there are limitations to WiFi compared with what we're offering. Typically, a WiFi hotspot can be costly (charged by the hour), inconvenient (setting up a new account for each different hotspots provider), and limited (only allowing access to the connection from 30 to 100 metres away at each hotspot). There is also the inconvenience of seeking out hotspots. Unwired's service on the other hand uses a modem which connects wirelessly to a tower from three to 10 kilometres away. Customers can buy the modem from retail stores or online, plug it into their computers Ethernet or USB port to connect to the wireless network. The setup process takes under five minutes and customers are immediately online. You could say that a WiFi service is equivalent to a cordless phone – it enables the user to wander a few metres away from the phone line itself. But it still has to connect to a phone line – or in this case an internet connection – to be of any use. Unwired's wireless broadband is the equivalent of the phone line or cable – it is the user's direct internet access.

What are the benefits of Unwired wireless broadband?

Unwired broadband has all the benefits of traditional broadband such as high speed and the convenience of being 'always on'. In addition, it is an easy-install process, does not require an appointment for someone to install it, and customers can easily connect it themselves. Once customers are set up with Unwired, they can connect to broadband in the Sydney coverage area (there will be 73 towers which will cover approx 95 per cent of Sydney) with one account, one bill and one low monthly charge. Unwired is also as secure as DSL or cable, due to a combination of its technology and our private spectrum.

What speeds can customers expect?

We sell 256kbps (256,000 bits per second), 512kbps and 1Mbps (1 million bits per second) services. The advantage of our offer is that we own a significant amount of spectrum. That's the key. Spectrum is needed to deliver high speeds to lots of customers – and we can, at a competitive price.

What does an Unwired base station look like?

In all cases, Unwired is constructing equipment on existing telecommunications sites. Normally there will be three to four antennae at each site, with the equipment shelter taking up about three square metres of space. The antennae are around 965mm high and 480 wide. We also may install additional antennae that are 600mm x 600mm to provide backchannel between base stations. The shelter housing the base station equipment is generally 2m x 1m x 2.4m.

How does the Unwired wireless broadband technology work?

Unwired uses advanced radio technology that supports the connection from our base stations to customers' modems. The technology doesn't require line-of-sight paths between base stations and modems. Instead, it makes use of radio signals that are bounced off walls and other objects to provide a connection.

Unwired has developed a radio coverage prediction tool that provides a picture of expected coverage in areas surrounding our base stations. This tool takes into account such things as the terrain, distance from the base station to the customer modem, the locality in which the modem is placed, and assesses the impact of placing a modem inside a building.

Based on the use of these tools, backed up by measurements used to tune model parameters, we concluded that we needed to build around 73 base stations to cover the Sydney region. In the design of the network we took into account the location of houses. By considering the number of houses covered in an area against the total number of houses in that area, we were able to assess the expected coverage of houses in that area. We have aimed to cover 95 per cent of houses in the coverage area.

What is the five per cent of Sydney Unwired doesn't cover and why?

There will always be a proportion of customers who can't receive a sufficiently strong signal to connect to our network. The signal strength may be diminished if a modem is located a long way from the base station, or if there is too much clutter or too many obstacles between the modem and the base station. For instance, if customers are at the bottom of a deep gully, behind a large hill, in a low-level building surrounded by much taller buildings, or in an internal room several walls back from an exterior wall, they may find they can't get a connection. But we expect the numbers affected by this will be much less than that of competing technologies.

How will you migrate from a proprietary solution to a standards based solution?

Unwired will be working with our equipment supplier Navini to:

- ensure that most of the changes are software not hardware-based, so that we can minimise network equipment replacement and capital expenditure
- ensure upgraded base stations are backwards compatible so that modems don't need to be swapped, but rather gradually updated as part of their natural life expectancy and replacement
- ensure the performance characteristics of the standard are not inferior to the performance characteristics of the proprietary equipment.

How Unwired fits in the global picture

Access mechanisms

Most connections into Australian homes and business premises are via standard copper lines. Many copper-line access networks were designed to support low bandwidth voice and, in the past, lines were installed in areas on the assumption that just one copper line would be required per premises.

But with the introduction of multiple dwelling units, medium density housing and multiple lines per household, many customers are seeking more lines per premises and broadband access.

Copper can support the bandwidth needed for broadband services but work needs to be done to change the copper lines' transmission parameters and to include special equipment in telephone exchanges. As a result there are gaps in the network where there are too few lines or where lines are simply not capable of supporting broadband services.

This represents an opportunity for alternative access mechanisms. Today there are two main options: fibre to the home and wireless access.

Fibre-access networks are in the early stages of development. Indications are that fibre can offer an alternative access mechanism in new housing developments, but the costs are high. Moreover, it's unlikely that a fibre-access network would be installed in an established area because of the significant disruption it would entail.

All this may help to explain why customers are taking up wireless-based services en masse. In Australia there are now more mobile phones than fixed lines, and in many cases people make use of mobile phones as an alternative to copper home line-based services.

Wireless services to the home are a viable alternative, especially where there are limitations in the copper network. In addition, wireless technology offers portability that cannot be matched by copper technology. And a wireless network can cover a wide area at very low cost compared with any other access technology.

Unwired, with its almost unparalleled access to interference-free spectrum in the 3.5GHz band, is perfectly placed to offer wireless based services and is now a global leader in the provision of fixed wireless access services. We can provide services across large areas without the need for installing expensive infrastructure into customer premises.

How Unwired fits in the broadband wireless picture

In the past, a broadband wireless service depended on the provision of a "line-of-sight" link between a base station and the customer's premises. This meant that a receiving unit had to be installed on the roof or under the eaves, and it had to be able to "see" the base station. According to some industry estimates, the proportion of premises that could actually be within line-of-sight of the base station could be as low as 15 per cent. No commercial wireless network can operate successfully in such an environment.

To ensure connection into as many locations as possible wireless links must operate in a non line-of-sight (NLOS) environment. NLOS technology has only recently become available and Unwired has been able to take full advantage of it.

Obviously, as the industry has begun to explore NLOS, various suppliers have offered their solutions to the market. We are well aware that all these solutions are proprietary and as such, don't have the backing of standards bodies.

Fortunately, broadband wireless operators and suppliers have concluded that to compete effectively they must move to standards-based wireless infrastructure solutions where economies of scale can offer further infrastructure cost benefits. A standardisation process is now well underway as part of an initiative by the WiMAX Forum (of which Unwired is a contributing member) aimed at achieving global standards for wireless broadband and harmonised spectrum use. The process is based on the IEEE 802.16a&d standards in the near term and the IEEE 802.16e standard which will add mobility functionality.

The WiMAX Forum's primary aim is to develop low-cost customer premises equipment. Here companies such as Intel and Samsung are involved in developing chip sets for IEEE 802.16d&e with the aim of integrating the sets into portable devices like laptop computers. This should occur some time in 2006.

Unwired's supplier, Navini Networks, is in the process of developing an IEEE 802.16e solution. When Navini's solution is operating, Unwired plans to adopt this standard.

3G, Hot Spot, WiFi and personal area solutions

Considerable confusion still exists in the market place about the applications of and relationships between various wireless technologies. The familiar “Hot Spot” or “WiFi” technology based around IEEE 802.11 standard systems, for instance, are in fact personal area access solutions. As such they work in limited locations and in unlicensed or class licensed bands and are not designed to provide a high quality carrier grade service. In a home or office, though, an IEEE 802.11 solution can be an ideal complement to the wide-area services offered by Unwired.

Third Generation mobile services (3G) can also provide a limited form of broadband. But this technology isn’t designed to offer cost-effective delivery of large amounts of data. Rather, it offers effective delivery of voice and small amounts of high-speed data to mobile terminals over seamless extended coverage areas.

Other mobile technologies based around CDMA EV-DO developments are also expected to become available in the near future. These services will be similar in look and feel to those available on 3G networks.

In this sense WiFi, 3G and EV-DO technologies offer complementary services to those supported by Unwired. In the years ahead we can anticipate that WiFi, 3G, EV-DO and Unwired deployments could co-exist in a complementary way to provide the highest performance and most economical form of connection for voice and data, depending on the location and demands of the user. Indeed in future, wireless terminal devices could use one of a number of access techniques, with the selection being made automatically.

New technology – the Unwired opportunity

The upgrading of Unwired’s services to support the IEEE 802.16e standard when it is finalised means we will be well positioned to support wide-area nomadic and mobile access requirements. As a standardised solution, this bodes well for the future for the company and its customers, particularly given the significant spectrum we hold. This will enable us to offer a range of services across our bandwith to a number of important customer segments over a wide area.

“Could I take the opportunity to thank you hugely for helping me get my connection up and running. I found your knowledge, manner and willingness to help absolutely top class. I can’t remember better customer service in any field, let alone IT.”

PM, KIRKHAM

Current broadband comparisons

	Unwired wireless broadband	Wifi in the home	Wifi hotspots	3G cellular
You can connect…	Anywhere within greater Sydney	Anywhere within the Home	Anywhere within the Hotspot	Anywhere within the Sydney coverage area
Description	Broadband internet connection on your computer 'anywhere' you go within the Sydney wireless network, via small wireless modem	Computer connects wirelessly to your standard ADSL or cable broadband connection anywhere within your home. Computer can move up to 60m from your wireless modem	Broadband internet connection on your wireless enabled laptop within a small distinct hotspot area (ie Starbucks)	High speed data and voice via any 3G enabled cell phones or PDAs, within a 3G network area
Technology	Proprietary	802.11	802.11	3G
Network /coverage	Modem connects to wireless towers providing up to 95% area coverage across greater Sydney	Wireless router connects to standard ADSL or Cable fixed broadband network, which connects to 70% of premises in greater Sydney. Covers up to 60m from wireless router/modem in the home	Hotspots (such as cafes, airport and hotels) use a Public Wireless Local Area Network (PWLAN) to provide wireless broadband to wireless enabled laptops	Handset connects to high-speed cellular data network, such as '3'
Computer or Laptop	Desktop computer or laptop	Desktop computer or laptop	Laptop	PCMCIA card for laptop, Bluetooth or infra red via phone.
Equipment required	Computer and wireless modem	Computer, wireless adaptor/ PC Card and a wireless router/modem	Laptop and a wireless adaptor/ PC Card	3G enabled phone or handset device
Speed	Broadband speeds up to 1Mbps, depending on plan chosen	Broadband speeds up to 1.5Mbps, depending on plan chosen	Up to 11 Mbps depending on number of users	Typically 384kbps
Connectivity range	Anywhere within the wireless coverage area (greater Sydney)	Up to 60m from wireless router /modem within the home	Within the designated hotspot area (ie café), up to 60-100 metres	Within the specified wireless coverage area/suburbs
Pricing	Standard broadband plan for all usage within Sydney coverage area	Standard broadband plan for all usage within home	$14 per hour* for internet session within the one hotspot	Monthly cost dependent on usage
Portability	Able to move modem & connection anywhere within Sydney coverage area at no extra charge	Fixed location. Transfer charge to move connection to another address	Access broadband connection only within a defined hotspot area	Use device anywhere within the 3G network coverage area
Interference	None	Potential for interference with other 802.11 networks	Potential for interference with other 802.11 hotspots	None
Payment method	Plans paid for via credit card, monthly in advance	Plans paid for via credit card, monthly in advance	Hourly access charge with each hotspot	Access and data charges billed monthly

*Telstra Hotspot single log-in pricing effective 1 August 2004

Board of directors

Peter Shore
Chairman

Peter was formerly a Group Managing Director of Telstra. He is Chairman of Uecomm, a director of Hostworks, and is on the Australian advisory board of Siemens. Educated in Adelaide, Peter is a significant figure in the telecommunications industry. He was a senior executive of OTC responsible for international business during the 1980s. He joined Telstra in 1992 as Managing Director of its International Business unit and from 1995 to 2000, was Group Managing Director, Commercial and Consumer, responsible for managing the company's largest business unit involving 6.5 million residential and 700,000 small business customers.

David Spence
Director & Chief Executive Officer

David is well known in the internet/communications industry both in Australia and New Zealand. He was previously Managing Director, the President & COO, then CEO of OzEmail Ltd during the internet high growth period 1995 to 2000. He has held various management and leadership positions in the retail, publishing and manufacturing industries and has served on the boards of Commander Communications, emitch, Vertical Markets, WebCentral and Access1. He has also served on the Board of the Internet Industry Association. Before joining Unwired, David was CFO of OPSM. He is a Chartered Accountant (SA) and has a commerce degree and post graduate qualifications from Natal University, South Africa.

Philippe Amouyal

Philippe joined The Invus Group, LLC in 1999 where he is a Managing Director. Prior to this, he spent over 15 years at The Boston Consulting Group in Paris and Boston, where he was a Vice President and Director and coordinated the global electronics and software practice activities from 1991 until 1998. He holds a M.S. in engineering and a DEA in management from Ecole Centrale de Paris (Paris, France) and was a Research Fellow at the Center for Policy Alternatives of the Massachusetts Institute of Technology (Cambridge, Massachusetts). He is a director of Weight Watchers International, Inc., WeightWatchers.com, Inc., and Financial Technologies International, Inc.

Andrew Kroger

Andrew is Managing Director of Strategic Pooled Development Ltd and a Director and major shareholder of CDS Technologies Ltd. Andrew practised as a solicitor in Melbourne before entering stockbroking and becoming a director of then one of Australias largest stockbroking companies, McIntosh Securities Ltd. In 1990 Andrew became Executive Chairman and Chief Executive Officer of the Forsayth Group of gold companies before the group was taken over in 1992. He is a trustee of the Royal Melbourne Hospital Neuroscience Foundation and a director of the Stuart Appleby Junior Golf Foundation. Andrew has a Bachelor of Economics and a Bachelor of Law degree from Monash University in Victoria.

Christopher North

Christopher co-founded Unwired Australia Pty Limited in conjunction with Steve Cosser in 1997. He is also the founder and Managing Director of Wattle Park Partners Pty Limited, a Canberra-based consultancy that provides strategic, regulatory, economic and technical advice and services in all aspects of telecommunications and the media. Over the past 10 years Christopher's company has undertaken projects for major telecommunications and broadcasting companies, governments and regulatory agencies in Australia, the USA, Europe and Asia. Prior to that, Chris spent 25 years as a senior career executive with the Australian Government, holding key positions in a range of departments. He was Chief-of-Staff for two Federal Government Ministers and a central player in the Australian reform of telecommunications and broadcasting regulation in the late 1980s and early 1990s.

William Robinson

Bill currently serves as a non-executive director of a number of companies including Deutsche Asset Management (Australia Limited), D.B Real Estate (Australia Limited) and the Emerging Markets Growth Fund Inc. which is managed by the US-based Capital International Group. He also chairs their respective compliance and audit committees. Following a period of 15 years with the Reserve Bank, and prior to his retirement from full-time employment in 1998, Bill spent 26 years overseas, including five years with the Asian Development Bank, three years as Treasurer of the Rome-based International Fund for Agricultural Development and 18 years in Paris as financial advisor to His Highness The Aga Khan. In the latter role he served as a director of numerous listed and private companies in Europe, USA, Asia and Africa operating across a wide variety of industries. Bill is an Associate of the Australian Society of Accountants, the Bankers Institute of Australasia and a Fellow of the Australian Institute of Company Directors.

Frederick M.R. Smith

Fred is a senior advisor to the Private Equity Division's international fund activities at Credit Suisse First Boston. He began his career at CSFB in 1967, and served in a number of senior positions within the Investment Banking Department until 1995 when he joined the Private Equity Division as Co-Head of its international activities. He served in that capacity and as a member of the investment committee until 2002. He continues as a director of various companies in which the Private Equity Division holds ownership interests. Fred received his BA in History from Yale University and attended The Johns Hopkins' School of Advanced International Studies.